

I claim:

1. A method for producing a predetermined number of instant lottery tickets comprising the steps of:

creating a first file having a record for each of the tickets wherein each of the records includes a ticket identifier and a value data representing the redemption value of the ticket wherein said ticket identifiers and said value data form a unique combination for each of the predetermined number of tickets;

creating a second file having a plurality of records corresponding to said records in said first file wherein at least a portion of said ticket identifiers are changed into modified ticket identifiers according to a shuffle process;

generating a link element associated with said shuffle process wherein said link element permits said modified first identifiers to be converted back into said ticket identifiers;

storing said link element in a secure environment such that said link element is only accessible under predetermine criteria; and

printing the tickets utilizing said second file such that said modified ticket identifiers and said value data from said second file are printed on each of the tickets.

2. The method of Claim 1 wherein said shuffle process utilizes a shuffle algorithm.

3. The method of Claim 2 wherein said shuffle process utilizes at least one seed and said generating said link element includes placing said seed in an encrypted form.

4. The method of Claim 2 wherein said link element includes at least a portion of said shuffle algorithm.

5. The method of Claim 1 said printing is performed by a ticket vendor and said secure environment is a computer not accessible by said vendor.

6. The method of Claim 1 wherein said step of creating said second file additionally includes transmitting said second file to a lottery administration computer.

7. The method of Claim 6 wherein said steps of generating storing said link element include transmitting said link element for storage in a secure portion of said lottery administration computer.

8. The method of Claim 1 additionally including the step of utilizing said link element and said second file to recreate at least a portion of said first file including said ticket identifiers for the tickets as printed.

9. The method of Claim 8 wherein said step of creating said second file additionally includes transmitting said second file to a lottery administration computer, said steps of

generating storing said link element include transmitting said link element for storage in said secure environment located in a secure portion of said lottery administration computer, and wherein said step of recreating said first file occurs in said lottery administration computer.

10. The method of Claim 8 wherein a least a portion of said link element includes encrypted data.

11. The method of Claim 10 wherein said shuffle process includes a shuffle algorithm having at least one seed and said encrypted data includes said seeds.

12. The method of Claim 11 wherein said step of creating said second file additionally includes transmitting said second file to a first location, said steps of generating and storing said link element include transmitting said encrypted data to said secure environment located in a secure portion of said first location, and wherein said step of recreating said first file occurs in said first location and utilizes at least one decryption key for said encrypted data.

13. The method of Claim 12 wherein said decryption key is maintained in a second location and transmitted to said first location from a second location in response to a set of predetermined criteria.

14. The method of Claim 13 wherein said first location is a lottery administration computer and said second location is an independent party computer.

15. The method of Claim 14 wherein said independent party creates said shuffle process and said decryption key and transmits said shuffle process to a ticket vendor who performs said steps of creating said second file and said printing of the tickets.

16. The method of Claim 15 wherein said decryption key is maintained by said independent party in a secure server.

16. The method of Claim 15 wherein said decryption key is transmitted according to said predetermined criteria by said independent party to said lottery administration computer for said recreation of said first file.

17. The method of Claim 1 wherein said ticket identifiers include pack numbers and a ticket number.

18. The method of Claim 17 wherein said shuffle process shuffles said pack numbers to create said modified ticket.

19. The method of Claim 18 wherein said second file includes said value data and said is printed on the tickets in the form of validation data along with said modified ticket identifiers.

20. The method of Claim 19 wherein said records in said first file additionally include a validation number including said value data and a set of play data for each of the tickets.
21. The method of Claim 1 wherein the predetermined number of tickets corresponds to a pool of tickets in a game.
22. A method for producing a predetermined number of instant lottery tickets comprising the steps of:
- generating a ticket data file having a record for each of the tickets wherein each of the records includes a pack number and a ticket number such that the combination of said pack number and said ticket number corresponding to each of the tickets serves to identify each of the predetermined number of tickets;
 - creating a second file having a plurality of records corresponding to said records in said ticket data file utilizing a shuffle process wherein at least a portion of said pack numbers are changed into modified pack numbers;
 - generating a link element associated with said shuffle process wherein said link element permits said modified pack numbers to be converted back into said pack numbers;
 - transmitting said link element to a secure environment such that said link element is only accessible under predetermine criteria; and
 - utilizing the information in said second file to print the tickets having said modified ticket numbers printed thereon.
23. The method of Claim 22 wherein a ticket vendor performs said creation of said second file and prints the tickets.
24. The method of Claim 23 wherein an independent party maintains said secure environment.
25. The method of Claim 24 wherein said ticket vendor transmits said second file to a said independent party and said independent party utilizes said link element to reconstruct said ticket file.
26. The method of Claim 24 wherein said ticket vendor transmits said second file to a lottery administration and said independent party transmits said link element to said lottery administration and said lottery administration recreates said ticket data file using said predetermined criteria and link element.
27. The method of Claim 22 wherein said independent party creates said shuffle process and transmits said shuffle process to said ticket vendor.

28. The method of Claim 27 wherein said shuffle process includes a shuffle algorithm.
29. The method of Claim 22 wherein said ticket vendor transmits said second file to a lottery administration and transmits said link element to said secure environment which is controlled by said lottery administration and said lottery administration utilizing said link element to recreates at least a portion of said ticket data file using said link element.
30. The method of Claim 22 wherein said shuffle process includes a shuffle algorithm.
31. The method of Claim 30 wherein said shuffle algorithm utilizes at least one seed and said seeds are encrypted and form at least a portion of said link element and transmitted to said secure environment.
32. The method of Claim 22 wherein a ticket vendor performs said shuffle process and said printing of said tickets.
33. The method of Claim 32 wherein an independent party creates said shuffle process which includes a process for encrypting at least a portion of said link element and creates keys for decrypting said link element.
34. The method of Claim 33 where in said shuffle process includes a shuffle algorithm utilizing at least one seed and said encrypting process includes encrypting said seeds.
35. The method of Claim 34 wherein said independent party creates and transmits said shuffle process to said ticket vendor.
36. The method of Claim 35 wherein said independent party maintains said decryption keys and recreates at least a portion of said ticket data file using said decryption keys.
37. The method of Claim 35 wherein said independent party transmits said decryption keys to said secure environment located in a lottery administration and said lottery administration recreates at least a portion of said ticket data file using said decryption keys.
38. A method for obtaining pack number for a predetermined number of lottery tickets where the tickets have been organized for printing into a plurality of packs wherein each pack includes a predetermined number of ticket numbers and has a modified pack number to be printed on the ticket wherein the modified pack numbers are functionally related to the pack numbers in a ticket data file according to a shuffle process comprising the steps:
- encrypting at least a portion of said shuffle process utilizing an encryption process having an encryption key and a decryption key; and

reversing said encryption process utilizing said decryption key to obtain said portion of said shuffle process; and

reversing the shuffle process utilizing said decrypted portion of said shuffle process to obtain the pack number related to at least one of the modified pack numbers.

39. The method of Claim 38 wherein said shuffle process includes a shuffle algorithm utilizing a seed and said portion of the shuffle process is said seed.

40. The method of Claim 39 wherein said encryption key is a public key and said decryption key is a private key.

41. The method of Claim 38 wherein said portion of the shuffle process includes substantially all of said shuffle process.

42. The method of Claim 38 wherein the pack number and the ticket number for each of the lottery tickets is contained in a record in a first ticket file wherein at least a portion of said records also contain a validation number for the lottery ticket and wherein the corresponding modified pack numbers and ticket numbers are contained in a second ticket file used for printing the lottery tickets with the modified pack numbers.

43. The method of Claim 42 wherein a ticket vendor utilizes said second ticket file to print the lottery tickets and said encryption and said decryption keys are maintained in a secure environment by an independent party.

44. The method of Claim 43 wherein said independent party provides a first party with said decryption key and said first party performs said processes of reversing said encryption process and reversing the shuffle process to obtain at least one of the pack numbers corresponding to at least one of the modified pack numbers.

45. The method of Claim 44 wherein said first party is a lottery administration.

46. The method of Claim 44 wherein said first party is said ticket vendor.

47. The method of Claim 43 wherein said secure environment and said independent party are located at said ticket vendor.

48. The method of Claim 43 wherein said secure environment and said independent party are located at a location remote from said ticket vendor.

49. The method of Claim 43 wherein said secure environment includes a computer for maintaining said encryption and decryption keys and wherein said computer system maintains a record of at least a portion of the use of said shuffle process, said encryption and decryption keys and said reversing of said shuffle process.

50. The method of Claim 38 including the step of recording for audit purposes in a computer memory a predetermined set of audit data representing operation of said steps of the method.

51. The method of Claim 50 wherein said audit data includes the times of use of said decryption key.

52. The method of Claim 50 wherein said audit data includes the times of said reversing of said shuffle process.

53. The method of Claim 50 wherein said audit data includes the times of said reversing of said encryption process.

54. The method of Claim 50 wherein said audit data includes the times of said encryption.

55. The method of Claim 50 wherein said audit data includes the times of said shuffle process.

56. The method of Claim 51 wherein said audit data additionally includes the times of said reversing of said encryption process and the times of the use of said said reversing of said shuffle process.

57. A method for obtaining a modified pack number for a predetermined number of lottery tickets where the tickets have been organized for printing into a plurality of packs wherein each pack includes a predetermined number of ticket numbers and has a modified pack number to be printed on the ticket wherein the modified pack numbers are functionally related to the pack numbers in a ticket data file according to a shuffle process comprising the steps:

encrypting at least a portion of said shuffle process utilizing an encryption process having an encryption key and a decryption key; and

reversing said encryption process utilizing said decryption key to obtain said portion of said shuffle process; and

operating the shuffle process utilizing said decrypted portion of said shuffle process to obtain at least one of the modified pack number related to at least one of the pack numbers.

58. The method of Claim 57 wherein the shuffle process includes a shuffle algorithm utilizing a seed and said portion of the shuffle process is said seed.

59. The method of Claim 57 wherein said encryption key is a public key and said decryption key is a private key.

60. The method of Claim 57 wherein an independent party provides a first party with said

decryption key and said first party performs said processes of reversing said encryption process and performing the shuffle process to obtain said at least one of the modified pack numbers.

61. The method of Claim 60 wherein said first party is a lottery administration.

62. The method of Claim 60 wherein said first party is said ticket vendor.

63. The method of Claim 57 including a secure environment having a computer for maintaining said encryption and decryption keys and wherein said computer system maintains a record including the times of at least a portion of the use of said shuffle process, said encryption and decryption keys.

64. An apparatus for producing a predetermined number of instant lottery tickets comprising:

a first computer for generating a ticket data file having a record for each of the tickets wherein each of the records includes a pack number and a ticket number such that the combination of said pack number and said ticket number corresponding to each of the tickets serves to identify each of the predetermined number of tickets;

a second computer operatively connected to said first computer for generating from said ticket data file a second file having a plurality of records corresponding to said records in said ticket data file utilizing a shuffle process wherein at least a portion of said pack numbers are changed into modified pack numbers suitable for printing the lottery tickets with said modified pack numbers and wherein at least a portion of said shuffle process is encrypted;

a third computer operatively connected to said first computer for storing said encrypted portion of said shuffle process.

65. The apparatus of Claim 64 wherein said shuffle process utilizes at least one seed and said encrypted portion of said shuffle process includes said seed.

66. The apparatus of Claim generating 64 wherein said encrypted portion of said shuffle process includes said substantially all of said shuffle process.